



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

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May 29, 1996

Mr. Robert E. Dunne, Project Manager
Tailings Modernization Project
Kennecott Utah Copper Corporation
11984 West Highway 202
Magna, Utah 84044

Dear Mr. Dunne:

Subject: Review of Appendix B - Operational Monitoring Plan - Kennecott Tailings Impoundment;
Ground Water Discharge Permit No. UGW350011

The review of the Operational Monitoring Plan that was received on February 21, 1996, has been completed. The following reflects the discussion entertained with your staff and consultants in our meeting on April 16, 1996, and the results of our field visit on April 25, 1996.

Section 2.1.1 Surface Water Sites

Toe Collection Ditch: A second sample site for the Toe Collection Ditch should be added adjacent to the Phosphogypsum stack. This is necessary to evaluate if contributions from the gyp stack are significant in comparison to the flow in the ditch.

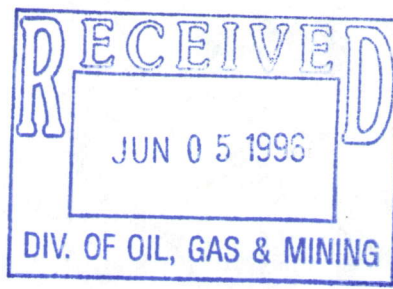
After a field review of the seep sites previously monitored by KUC, the following seeps should be included in the operational monitoring plan: TLS1426, TLS1430, TLS1431, TLS1432, TLS1433, and TLS1434.

Sampling frequency for seeps should be quarterly initially (assuming flow occurs year around) and then change to semi-annually after two years of data have been established.

Section 2.1.2 Tailings Wells

In addition to the wells completed in tailings that were proposed (TLT449A, TLT449C, TLT864, and TLT887), one additional well site with two depths of completion (completed in tailings material) is needed. The location of these two new wells should be approximately north of NEA634A and west of the Copperton point discharge.

Sampling frequency should be semi-annually for tailings wells



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Section 2.1.3 Lysimeters

The frequency of sampling should be semi annually based on Part I Section G3 of the permit.

Section 2.1.4 Analytes and Analytical Methods

The list of analytes provided in the plan does not conform to the requirements of the permit (Part I, Section G1) and should be modified accordingly. For lysimeter samples where sample volume is limited, the approach given of analyzing for pH, trace metals, and then major ions, if sufficient volume is available, is acceptable.

Sample Collection

A sample collection protocol for collecting samples from seeps is needed. This protocol should define how flow will be isolated and collected so as to avoid contaminating the sample with surface sediments in the vicinity.

In order to have an approvable plan in time to begin sampling in the summer of 1996, would you please assure that a revised version of Appendix B that addresses the issues noted in this letter is submitted to the Division of Water Quality by June 28, 1996. If you have questions or would like to meet to discuss any issues relating to this plan, please free to contact me.

Sincerely,



John Whitehead, Ground Water Hydrologist
Ground Water Protection Section

JW:wfm

cc: Wayne Hedberg, DOGM
Gene Farmer